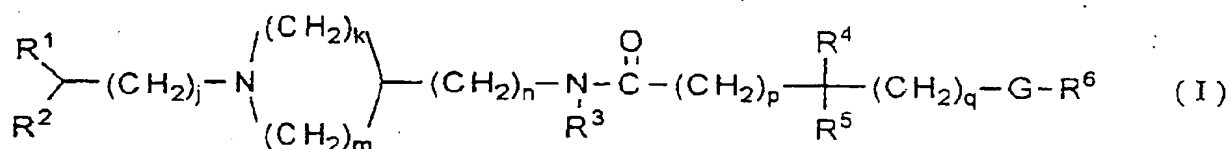


CLAIMS

1. A pharmaceutical composition which contains, as an active ingredient, a compound represented by the following formula (I), a pharmaceutically acceptable acid addition salt thereof or a pharmaceutically acceptable C₁ to C₆ alkyl addition salt thereof, and which has a CCR3-antagonistic activity,



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[wherein, R¹ represents a phenyl group, a C₃ to C₈ cycloalkyl group, or an aromatic heterocyclic group having one to three atoms of oxygen, sulfur and/or nitrogen as heteroatoms, provided that the phenyl group or the aromatic heterocyclic group in the above-mentioned R¹ may be condensed with a benzene ring, or an aromatic heterocyclic group having one to three atoms of oxygen, sulfur and/or nitrogen as heteroatoms to form a condensed ring, further provided that the phenyl group, the C₃ to C₈ cycloalkyl group, the aromatic heterocyclic group or the condensed ring may be substituted by the arbitrary number of halogen atoms, hydroxy groups, cyano groups, nitro groups, carboxyl groups, carbamoyl groups, C₁ to C₆ alkyl groups, C₃ to C₈ cycloalkyl groups, C₂ to C₆ alkenyl groups, C₁ to C₆ alkoxy groups, C₁ to C₆ alkylthio groups, C₃ to C₅ alkylene groups, C₂ to C₄ alkyleneoxy groups, C₁ to C₃ alkylenedioxy groups, phenyl groups, phenoxy groups, phenylthio groups, benzyl groups, benzyloxy groups, benzoylamino groups, C₂ to C₇ alkanoyl groups, C₂ to C₇ alkoxy carbonyl groups, C₂ to C₇ alkanoyloxy groups, C₂ to C₇ alkanoylamino groups, C₂ to C₇ N-alkylcarbamoyl groups, C₄ to C₉ N-cycloalkylcarbamoyl groups, C₁ to C₆ alkylsulfonyl groups, C₃ to C₈ (alkoxy carbonyl)methyl groups, N-phenylcarbamoyl groups, piperidinocarbonyl groups, morpholinocarbonyl groups, 1-pyrrolidinylcarbonyl groups, divalent groups represented by the formula: -NH(C=O)O-, divalent groups represented by the formula: -NH(C=S)O-, amino groups, mono(C₁ to C₆ alkyl)amino groups

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or di(C₁ to C₆ alkyl)amino groups, and further provided that the substituents of the phenyl group, the C₃ to C₈ cycloalkyl group, the aromatic heterocyclic group or the condensed ring may further be substituted by the arbitrary number of halogen atoms, hydroxy groups, amino groups, trifluoromethyl groups, C₁ to C₆ alkyl groups or C₁ to C₆ alkoxy groups.

R² represents a hydrogen atom, a C₁ to C₆ alkyl group, a C₂ to C₇ alkoxycarbonyl group, a hydroxy group or a phenyl group, provided that the C₁ to C₆ alkyl group or the phenyl group in R² may be substituted by the arbitrary number of halogen atoms, hydroxy groups, C₁ to C₆ alkyl groups or C₁ to C₆ alkoxy groups, and provided that when j is 0, R² is not a hydroxy group.

j represents an integer of 0 to 2.

k represents an integer of 0 to 2. ?

m represents an integer of 2 to 4. ?

n represents 0 or 1.

R³ represents a hydrogen atom or a C₁ to C₆ alkyl group which may be substituted (by one or two phenyl groups which may be substituted by the same or different arbitrary numbers of halogen atoms, hydroxy groups, C₁ to C₆ alkyl groups or C₁ to C₆ alkoxy groups, respectively).

R⁴ and R⁵, same or differently, represent a hydrogen atom, a hydroxy group, a phenyl group or a C₁ to C₆ alkyl group, respectively, and the C₁ to C₆ alkyl group in R⁴ and R⁵ may be substituted by the arbitrary number of halogen atoms, hydroxy groups, cyano groups, nitro groups, carboxyl groups, carbamoyl groups, mercapto groups, guanidino groups, C₃ to C₈ cycloalkyl groups, C₁ to C₆ alkoxy groups, C₁ to C₆ alkylthio groups, phenyl groups (which may be substituted by the arbitrary number of halogen atoms, hydroxy groups, C₁ to C₆ alkyl groups, C₁ to C₆ alkoxy groups or benzyloxy groups), phenoxy groups, benzyloxy groups, benzyloxycarbonyl groups, C₂ to C₇ alkanoyl groups, C₂ to C₇ alkoxycarbonyl groups, C₂ to C₇ alkanoyloxy groups, C₂ to C₇ alkanoylamino groups, C₂ to C₇ N-alkylcarbamoyl groups, C₁ to C₆ alkylsulfonyl groups, amino groups, mono(C₁ to C₆ alkyl)amino groups, di(C₁ to C₆ alkyl)amino groups or aromatic heterocyclic groups (having one to three atoms of oxygen, sulfur and/or nitrogen as heteroatoms) or condensed rings formed by the condensation of the aromatic heterocyclic group with a benzene ring, or R⁴ and R⁵ may together form a three to six-membered cyclic hydrocarbon.

p represents 0 or 1.

q represents 0 or 1.

G represents a group represented by -CO- , $\text{-SO}_2\text{-}$, -CO-O- , $\text{-NR}^7\text{-CO-}$, $\text{-CO-NR}^7\text{-}$, -NH-CO-NH- , -NH-CS-NH- , $\text{-NR}^7\text{-SO}_2\text{-}$, $\text{-SO}_2\text{-NR}^7\text{-}$, -NH-CO-O- , or -O-CO-NH- , provided that R^7 is a hydrogen atom or a C_1 to C_6 alkyl group, or R^7 may form a C_2 to C_5 alkylene group together with R^5 .

R^6 represents a phenyl group, a C_3 to C_8 cycloalkyl group, a C_3 to C_6 cycloalkenyl group, a benzyl group or an aromatic heterocyclic group having one to three atoms of oxygen, sulfur and/or nitrogen as heteroatoms, provided that the phenyl group, the benzyl group or the aromatic heterocyclic group in the above-mentioned R^6 may be condensed, to make a condensed ring, with a benzene ring or an aromatic heterocyclic group having one or three atoms of oxygen, sulfur and/or nitrogen as heteroatoms, further provided that the phenyl group, the C_3 to C_8 cycloalkyl group, the C_3 to C_6 cycloalkenyl group, the benzyl group, the aromatic heterocyclic group or the condensed ring in the above-mentioned R^6 may be substituted by the arbitrary number of halogen atoms, hydroxy groups, mercapto groups, cyano groups, nitro groups, thiocyanato groups, carboxyl groups, carbamoyl groups, trifluoromethyl groups, C_1 to C_6 alkyl groups, C_3 to C_8 cycloalkyl groups; C_2 to C_6 alkenyl groups, C_1 to C_6 alkoxy groups, C_3 to C_8 cycloalkyloxy groups, C_1 to C_6 alkylthio groups, C_1 to C_3 alkylenedioxy groups, phenyl groups, phenoxy groups, phenylamino groups, benzyl groups, benzoyl groups, phenylsulfinyl groups, phenylsulfonyl groups, 3-phenylureido groups, C_2 to C_7 alkanoyl groups, C_2 to C_7 alkoxycarbonyl groups, C_2 to C_7 alkanoyloxy groups, C_2 to C_7 alkanoylamino group, C_2 to C_7 N-alkylcarbamoyl groups, C_1 to C_6 alkylsulfonyl groups, phenylcarbamoyl groups, N,N-di(C_1 to C_6 alkyl)sulfamoyl groups, amino groups, mono(C_1 to C_6 alkyl)amino groups, di(C_1 to C_6 alkyl)amino groups, benzylamino groups, C_2 to C_7 (alkoxycarbonyl)amino groups, C_1 to C_6 (alkylsulfonyl)amino groups or bis(C_1 to C_6 alkylsulfonyl)amino groups, and further provided that the substituents of the phenyl group, the C_3 to C_8 cycloalkyl group, the C_3 to C_6 cycloalkenyl group, the benzyl group, the aromatic heterocyclic group, or the condensed ring may further be substituted by the arbitrary number of halogen atoms, cyano groups, hydroxy groups, amino groups, trifluoromethyl groups, C_1 to C_6 alkyl groups, C_1 to C_6 alkoxy groups, C_1 to C_6 alkylthio groups, mono(C_1 to C_6 alkyl)amino groups, or di(C_1 to C_6 alkyl)amino groups.].

2. The pharmaceutical composition having the CCR3-antagonistic

action according to Claim 1, wherein k is 1 and m is 2 in the above-mentioned formula (I).

3. The pharmaceutical composition having the CCR3-antagonistic action according to Claim 1, wherein k is 0 and m is 3 in the above-mentioned formula (I).

4. The pharmaceutical composition having the CCR3-antagonistic action according to Claim 1, wherein k is 1 and m is 3 in the above-mentioned formula (I).

5. The pharmaceutical composition having the CCR3-antagonistic action according to Claim 1, wherein k is 2 and m is 2 in the above-mentioned formula (I).

6. The pharmaceutical composition having the CCR3-antagonistic action according to Claim 1, wherein k is 1 and m is 4 in the above-mentioned formula (I).

7. A pharmaceutical composition which contains, as an active ingredient, the compound represented by the above-mentioned formula (I), the pharmaceutically acceptable acid addition salt thereof or the pharmaceutically acceptable C₁ to C₆ alkyl addition salt thereof, and which is used for treating or preventing a disease concerned with CCR3.

8. The pharmaceutical composition for treating or preventing the disease according to Claim 7, wherein the disease is an allergic disease.

9. The pharmaceutical composition for treating or preventing the disease according to Claim 8, wherein the disease is asthma, allergic rhinitis, atopic dermatitis, urticaria, contact dermatitis, or allergic conjunctivitis.

10. The pharmaceutical composition for treating or preventing the disease according to Claim 7, wherein the disease is an inflammatory bowel disease.

11. The pharmaceutical composition for treating or preventing the disease according to Claim 7, wherein the disease is AIDS.